20.6.10

Title : Home work – designing biobrick parts

Dear Team

As you all know, all of us have been asigned to design parts for this project ,i decided which parts everyone should design.

Please, while you are making this parts take into considaration that its an extreamly delicate and complex process thus make sure mistakes arn't made. Send it back in a txt format when you are done. Instructions on what to make and how are in this mail.

Part 1: The work standard of a biobrick part

According to our last meeting I'm suggesting that EVERYONE should read through carefully and thoroughly the two standard protocols that we have to work with from now on.

You can download them from the links below, in addition I attached the standards to this mail.

1. the Heidelberg 2009 team standard (BBRFC12)
http://dspace.mit.edu/handle/1721.1/45139
2. the Freiburg standard (BBRFC25)
http://dspace.mit.edu/handle/1721.1/45140
More info on standards here:
http://bbf.openwetware.org/Standards/Technical/Formats.html

Part 2: Web design of a biobrick part

1.First, check if the part is already available or not in the parts registry.

2. Design it for both standards using balint's instructional video (http://labtutorials.org)
that means that you should remove the restriction site mention in both standards but dont use the prefix and suffix ill add them by myself.

Here is the list of restriction sites from BOTH standards which should not be contained inside the part:

EcoRI site: GAATTC
SpeI site: ACTAGT
NheI site, GCTAGC
PstI site: CTGCAG
NotI site: GCGGCCGC
PvuII site: CAGCTG
XhoI site; CTCGAG
AvrII site: CCTAGG
XbaI site: TCTAGA
SapI site: GCTCTTC and GAAGAGC

As well as these two sites should be eliminated (these are the two most important)
AgeI site
NgoMIV site

3. Let's keep the end in mind. Everyone should generate one text document for every part in question. Text document shuld contain:
    a. ordered list of oligos
    b. whole sequence of the parts. Do not add the prefix/suffix to this sequence.

Part 3: Work distribution

Everyone gets 10 parts approximatly that he should design by the instructions mention above. Please send those parts to me in a txt document before the deadline mention below

Katalin Sandor – 10 parts
human Nuclear receptor LBD-s: PPARa, PPARg, PPARdelta, RXRa, RXRb, RXRg, RARa, RARb, RARg, VDR (vitamin D receptor**)**

Erika Berenyi - 10 parts
human Nuclear receptor LBD-s: ER (estrogen receptor), AR (testosterone receptor), GR (glucocorticoid receptor), PXR, CAR, FXR, PR (progesterone receptor), TR (thyroid hormone receptor), ERRA, ERRb

Daniel Markovits – 9 parts
human Nuclear receptor LBD-s: ERRg
Drosophyla Ecdysone receptor LBD: EcR
C.elegans LBD: DAF-17, NHR-8, NHR-23, NHR-25, NHR-49, NHR-80
HIF1alpha-hypoxia sensing(LBD)

Katalin Nagy – 5 x 2 parts
human and mouse Nuclear receptor DBD-s: PPARa, PPARg, PPARdelta, RXRa, RXRb

Lior Malka - 5 x 2 parts
human and mouse Nuclear receptor DBD-s: RXRg, RARa, RARb, RARg, VDR (vitamin D receptor),

Beregi Tímea - 5 x 2
human and mouse Nuclear receptor DBD-s: ER (estrogen receptor), ERbeta, AR (testosterone receptor), GR (glucocorticoid receptor), PXR

Liu Shun-Chieh - 5 x 2
human and mouse Nuclear receptor DBD-s: , CAR, FXR, PR (progesterone receptor), TR (thyroid hormone receptor), ERRA,
Yakir Guri – 5 x 2
human and mouse Nuclear receptor DBD-s: ERRb, ERRg, Nurr1, Nurr77, NOR1

Endre Károly Kristóf – 5 x 2
human and mouse Nuclear receptor DBD-s: SF1, LRH1, DAX1, SHP, NGF1b,

Lilla Ozgyin – 5 x 2 parts
human and mouse Nuclear receptor DBD-s :CoupTF1, COUPTF2, PNR, TLX, TR2

Balint Laszlo Balint – 5 x 2 parts
human and mouse Nuclear receptor DBD-s :TR4, HNF4a, HNF4g, RORa, RORb

Bence Daniel – 3 x 2 + 6 parts
human and mouse Nuclear receptor DBD-s :RORg, RevErb alfa, Rev ERB beta**,**
others:
HIF1alpha-hypoxia sensing
ES specific: Oct4, KLF4, SOX2, Nanog, cMyc

Ophir Keret - 7 parts
Prokaryotic: GAL4
Other elements:
(see Gene designer 1.0)
Tags: myc, hys, VP16, HA, lacZ, SPT TAG

Gabor Zahuczky – 6 parts
Mammalian selection casettes: Neomycin, Hygromycin, Puromycin, Zeocyn,
Recombinases: Flip, cre

Summary: I know that we entered into the weekend and you all have an exhusted period of exams that you should deal with in addition to our project.
Fortunatly, the whole work shouldnt take more than one hour your time that if we should with those parts we have to order them as fast as possible and this is why the dead line is so soon.

Sincerily
Lior Malka